

**Annual Report of Major Accomplishments and Outcomes**  
**July 1, 2010 – June 30, 2011**  
**Nebraska Occupational Safety and Health Program (fundamental grant)**  
**Nebraska Department of Health and Human Services, Office of Epidemiology**

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### **Project Overview and Objectives**

The Nebraska Occupational Safety and Health Program (NOSHP) program was funded July 1, 2010 and the objectives for the first year were as follows: 1) collect information from existing systems that capture occupational safety and health data on workplace hazards and health effects in order to calculate the NIOSH/CSTE occupational health indicators (OHIs), 2) develop a pesticide poisoning surveillance system, 3) expand the Adult Blood Lead Epidemiology and Surveillance (ABLES) program, 4) identify and interact with stakeholders, 5) assemble an advisory committee, 6) participate in meetings and conference calls, and 7) develop a website.

### **Major Accomplishments and Outcomes**

1. Occupational Health Indicators: Data for the NIOSH/CSTE OHIs were collected for the years 2000-2008 to establish the status of worker safety and health over time. Overall, the rates for most OHIs in Nebraska have decreased over the nine year period; however, the rates of work-related hospitalizations, work-related burn hospitalizations, age-standardized pneumoconiosis hospitalizations, and age-standardized pneumoconiosis deaths have increased. Similarly, the rate of workers in high risk industries and occupations for occupational morbidity and mortality has increased. A comparison was also made of the Nebraska OHIs to the OHIs for the U.S. and other states. In general, the Nebraska OHIs were similar to the OHIs for the U.S. and other states; however, the rate of fatal work-related injuries, work-related amputations, pesticide poisonings, and workers in high risk industries and occupations for occupational mortality were higher or much higher in Nebraska than the U.S. average and other states. Finally, an in depth review of three indicators (workers in industries at high risk for occupational morbidity, workers in occupations at high risk for occupational morbidity, and workers in industries and occupations at high risk for occupational mortality) revealed those high risk industries and occupations in Nebraska with a large number of employees. Each of these analyses led to **potential outcomes** as they helped shape the direction of the NOSHP in terms of education and outreach efforts aimed at workers in high risk industries and occupations. Additionally, the findings were presented to the Public Health Support Unit at DHHS and to the advisory committee.

2. Pesticide Poisoning Surveillance System: After attending the SENSOR-Pesticides Winterfest meeting and soliciting advice from NIOSH project scientist Dr. Geoff Calvert, the NOSHP program manager met with the managing director at the Nebraska Regional Poison Center (NRPC). Following that meeting, a written plan was developed to obtain pesticide poisoning cases. The NRPC sends bi-weekly faxes to the NOSHP program manager with such cases. Each case is entered into SPIDER, a computer-based data manager used for collecting, managing, and reporting pesticide exposures. A written plan was developed for conducting follow-up of

pesticide poisoning cases; this plan was to be enacted in June using a function of the state's National Electronic Disease Surveillance System (NEDSS)-based system called "page builder." The utility of page builder is that each of the local health departments (LHDs) in Nebraska has a staff person dedicated to conducting surveillance activities and has access to NEDSS. Thus by developing a "page" to assist with follow-up of a condition such as pesticide poisoning, surveillance personnel in the LHDs can access the page via NEDSS and perform the follow-up interview. Unfortunately, Nebraska lost access to the entity providing technical support to develop page builder modules in June and the effort to perform follow-up of pesticide poisoning cases is temporarily on hold. One **potential and intermediate outcome** of this effort was that the program manager gave a poster presentation at the CSTE Annual Meeting describing the process of creating a pesticide program. The findings could impact workplace risk and be used by other programs and influence training of workers.

3. Expand ABLES: The NOSHP worked with the Nebraska ABLES program coordinator to develop a more robust surveillance program for elevated adult and pediatric blood lead tests. The NOSHP provided technical support to upload past years' data into NEDSS, which is the electronic database used for all reportable conditions in Nebraska. The NOSHP program manager assessed the data gaps in the adult blood lead tests reported to the ABLES program; the primary concern was that the employer, industry, and occupation were rarely reported. Subsequently, the NOSHP developed a plan for follow-up of elevated adult and pediatric lead tests. Similar to the plan noted above for pesticide poisoning, the page builder capacity was to be used such that LHDs could perform follow-up for elevated blood lead tests; as the technical support for developing page builder is not available at this time, the ability to conduct follow-up for lead tests is also suspended. One **potential outcome** of this effort was that a handful of workplaces and industries were identified via lead tests and the NOSHP will work with those employers to ensure continued testing and safe working conditions.

4. Identify and Interact with Stakeholders: In its first year the NOSHP identified more than 75 partners throughout the state and staff met with many of those entities to discuss occupational safety and health concerns for Nebraska's workforce. Working with stakeholders has given the program ideas for potential projects independent of and in coordination with partner organizations. An **intermediate outcome** of this effort is that the program coordinator facilitated a teleconference with the three other states that fall under the jurisdiction of OSHA Region VII to discuss a regional strategy for state-based surveillance programs to work with OSHA. A similar **intermediate outcome** is that the program manager was invited to lecture on occupational health surveillance at a university class and to speak at the Great Plains Safety and Health Organization Annual Safety and Health Conference.

5. Assemble an Advisory Committee: The NOSHP assembled an advisory committee and held the first meeting in June. The committee members have a variety of backgrounds (academia, consulting, state and local government, and non-profit organizations). Meeting with the advisory committee resulted in a **potential outcome** in that the NOSHP identified potential projects based on our preliminary findings from the OHIs aimed at reducing workplace risk for injury or illness. The committee provided quantitative input on the future efforts of the NOSHP.

6. Participate in various meetings and conference calls: The program manager of the NOSHP attended four national meetings funded in part by NIOSH and CSTE (COSS/CSTE Meeting, SENSOR-Pesticides Winterfest, OSHA-CSTE Partnership Meeting, and the CSTE Annual Meeting), which provided the opportunity to learn best practices and techniques used in other states and determine whether it is feasible to adopt those tactics in Nebraska. The project manager also participated on several teleconferences with local and national groups working on issues such as coordinating surveillance efforts in Nebraska, adding industry and occupation to various data collection forms, and reporting standards for the OHIs. Participation in meetings that discussed the addition of industry and occupation questions to the BRFSS resulted in an **intermediate outcome** as Nebraska will be adding those questions as state-added questions to the 2012 Nebraska BRFSS. In addition to attending the CSTE Annual Meeting, the program manager presented a poster at the meeting on the process of developing a pesticide poisoning surveillance system in Nebraska, which sparked dialogue with other professionals in the field and gave the program ideas for improving our system.

7. Develop a website: The NOSHP program manager developed text for a website for the Office of Epidemiology as there was no such website at the time the NOSHP was funded. Then text for the NOSHP website was developed and submitted to the webmaster in April. However, the current DHHS website is undergoing a major upgrade and new sites cannot be added until the changes have been made. These updates are expected to be complete in August.

### **Plans for Next Year**

Many of the program objectives will remain for the second year of funding; subsequently the NOSHP will continue to expand on the efforts described above via activities such as:

1. Collecting data on the 20 occupational health indicators set forth by NIOSH and CSTE, develop state-specific indicators based on local data sources, and perform a trend analysis on the indicator data from past years.
2. Facilitating meetings with occupational health physicians to increase awareness that pesticide poisoning is a reportable condition in Nebraska. We anticipate that resources become available to utilize the page builder function in NEDSS which will allow us to develop the capacity to work with LHDs and perform follow-up on pesticide cases.
3. Conducting education and outreach activities aimed at workers exposed to lead and continue efforts to conduct follow-up of elevated blood lead tests when the resources become available.
4. Identifying new stakeholders, meet with new and previously identified stakeholders to engage them, develop additional ideas for surveillance data, and discuss potential outreach activities.
5. Assembling the advisory committee at least one time for input on projects and insight on future projects and outreach.
6. Attending meetings and conference calls to bring best practices and new ideas to Nebraska.
7. Utilizing the website to disseminate information to stakeholders and the public.

In addition to these goals, the program hopes to conduct educational outreach and disseminate information via annual reports, submission of articles, participating in meetings, and giving lectures to achieve **potential and intermediate outcomes** and begin determining how the NOSHP can reach **end outcomes** that ultimately measure to reduction in risk and number of occupational injuries and illnesses in Nebraska.